

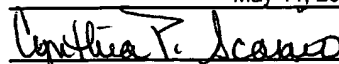
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PATENT

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Cynthia P. Scanio May 11, 2005

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

Ex parte Christenson et al.

Appeal No. _____

Serial No.:	10/057,474
Filed:	January 25, 2002
Group Art Unit:	3683
Examiner:	Devon C. Kramer
Applicant:	Bruce Christenson and Gary Veselica
Title:	METHOD TO IMPROVE ADHESION BETWEEN PRE-CURED ELASTOMER AND METAL SURFACE

Cincinnati, Ohio 45202

May 11, 2005

**Mail Stop Appeal Brief-Patents
Commissioner for Patents
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Alexandria, VA 22313-1450**

REPLY BRIEF

This is in reply to the Examiner's Answer mailed March 22, 2005. The Examiner has maintained that applicants have attacked the obviousness rejection by arguing the references separately. It is applicants' position that when one considers the references, it would be unobvious to combine the references. The Examiner has not established a *prima facie* case of obviousness.

The invention is the use of a phosphate treatment in a vibration dampener that prevents slipping between the metal members positioned on either side of an elastomeric member wherein the elastomeric member is a pre-formed or pre-cured elastomeric member and, specifically, EPDM or ethylene acrylate co-polymer. As stated in applicants' brief, the primary reference (Fishbaugh) teaches a vibration dampener having a preformed elastomeric member, but it does not teach phosphatizing the metal surfaces. The other secondary references do teach ethylene propylene diene monomer or ethylene acrylate polymer as a rubber member in a vibrations dampener but, again, do not teach phosphate treatment.

This leaves the Kingsley reference. The Kingsley teaches improved adhesion using a phosphate treatment **where the polymer is cured *in situ* against the phosphate coated surface**. The Examiner uses this disclosure of curing a polymeric material in contact with a phosphated surface to modify the primary reference, Fishbaugh, which discloses a pre-cured elastomeric member in a vibration dampener without any disclosure of the phosphated surface.

This combination is hindsight reconstruction of the invention. In other words, the Examiner has set forth nothing whatsoever that would suggest this combination. One cannot argue that the improved adhesion disclosed in the Kingsley reference would suggest this combination. That improved adhesion is with a totally different system, a cured *in situ* polymer and more particularly cured *in situ* polyurethane. For this reason it is maintained that the Examiner has not established a *prima facie* case of obviousness.

Applicants are not merely addressing the reference separately. Applicants have established why the combination set forth by the Examiner is unobvious. To assume that a phosphate treatment with a cured *in situ* polyurethane would work for a preformed EPDM or polyacrylate is not logical. It is certainly not suggested by the prior art.

In the event the cited references establish a *prima facie* case of obviousness, there certainly is no disclosure of the unexpected advantages achieved when using EPDM or ethylene acrylate co-polymer as the preformed elastomeric member. As shown by the affidavit of Gary Veselica, which is not questioned by the Examiner, one observes improved heat aging with respect to EPDM and ethylene acrylate co-polymer, but not with nitrile or SBR.

The Examiner's response stated "please note that appellants' declaration states that the bond increased after heat aging of metal and rubber. This heat aging decreases the density of the rubber and promotes bonding such as that taught by Kingsley." There is absolutely no disclosure in any of the reference that heat aging decreases the density of the rubber and promotes bonding. There is no disclosure in Kingsley of improved adhesion caused by heat aging. Kingsley merely discloses, as has been stated numerous times before, that there is improved adhesion between *in situ* cured polyurethane and a phosphated surface. This shows that the reasoning behind this rejection is impermissible hindsight. More importantly, the Examiner has failed to provide any valid reason that the benefits of applicants' invention are not unexpected.

In light of the above, applicants maintain that the Examiner has failed to establish a case of *prima facie* case of obviousness, and, if he has established a case of

prima facie case of obviousness, the unexpected advantages achieved using the present invention clearly support the patentability of the claimed invention.

Respectfully submitted,

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